



PORKKA BLUE

TECHNICAL DATA		
Protection class		IP66
Shock resistance		IK08
External dimensions:		
Length (X)	mm	1213
Illuminating area (Xm)	mm	800
Width (Y)	mm	76
Height (Z)	mm	67
Weight	kg	1,7
Ambient temperature	°C	-25+35
Voltage / frequency	v /	220-240V, 50/60Hz
Connection Power White/ Blue	w	40/75
Cord length	mm	4000



WIELAND PLUG CONNECTION INFO		
Ν	Neutral (Blue)	
GND	Safety ground (Yellow-Green)	
3	Blue light, line (Brown)	
1	White light, line (Gray)	



PORKKA BLUE – AN EFFECTIVE ANTIMICROBIAL SOLUTION



The antimicrobial potential of blue light has been extensively studied and scientifically proven, but only recent developments in LED technology have made it possible to use blue light costeffectively to combat microbiological threats.

PORKKA BLUE is a disinfection blue light that in studies has been found to eliminate harmful contaminants, mould, and yeasts from surfaces. PORKKA BLUE can be used to significantly promote safety in industry, professional kitchens, and supermarkets

PORKKA BLUE is available as a factory-fitted accessory for Porkka cold and freezer rooms and utility cabinets. Retrofitting is also possible.

With the optional catalytic coating added the power of blue light is increased and initiates a chemical reaction that effectively destroys viruses.

PORKKA BLUE is the best and most effective solution for disinfecting the surfaces of refrigeration equipment in many environments, for example nursing homes, schools, care centres, dentists, veterinarians, grocery stores, restaurants, kitchens, supermarkets, the food industry, logistics centres, refrigerated waste warehouses, medical solutions, laboratories and clean rooms in hospitals and laboratories.

PORKKA BLUE does not use UV wavelength

PORKKA BLUE effectively disinfects without chemicals, water, or UV light. This new light technology has been found by the Finnish Radiation and Nuclear Safety Authority (STUK) to be non-ionizing and is safe for humans and materials.



PORKKA BLUE STUDIES





Blue Light irradiation Light-absorbing Cell membrane H.O. ROS H.O. ROS H.O. ROS H.O. ROS H.O. ROS H.O. ROS H.O. Cell membrane damage DNA damage Protein damage Light-absorbing CELL DAMAGE Light peroxidation PORKKA BLUE solution has been studied within a typical cold room. The light output (see simulation on the left), with direct illumination is sufficient to destroy bacteria and mould from all visible surfaces. In addition, the reflection from the surface materials further enhances the effect which has not been calculated in the accompanying graphic.

PORKKA BLUE disinfection system uses blue light when the doors of the refrigerated appliance is closed. PORKKA BLUE disinfection light fittings are safe for people and materials. The lights are controlled either manually with a switch or automatically (with a timer). Blue light has been shown to effectively destroy bacteria, mould, and yeast. Disinfection efficiency can be enhanced by adding the optional catalytic coating on the internal surfaces of the refrigerated appliance.

EFFICIENCY OF PORKKA BLUE

The ability of PORKKA BLUE to destroy microbes is based on its ability to energize microbes' naturally photosensitive compounds so that they begin to produce highly reactive oxygen species (ROS) within the cell. These reactive oxygen species destroy vital components of the microbe (cell membrane, DNA/ RNA, protein structures).

The University of Eastern Finland (UEF) has studied the effect of blue light at cold food temperatures on several bacteria and fungi (ATCC cultures): All pathogens are inactivated within 24 hours Source: OJALA KATRIINA M: Antimicrobial Effect of Blue Light on the Spoilage Microbes and on the Microbiological Safety of Food. Master's Thesis, November 2019.



PORKKA BLUE FUNCTIONALITY

Blue light 40W

Traditional light 40W

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PORKKA BLUE simplifies everyday life for professionals as the blue light constantly does its job of destroying harmful microbes when the door of the refrigerated appliance is closed. At the same time, the safety of food, pharmaceuticals, packaging and storage facilities and equipment is improved ecologically.

• Based on test results, the number of harmful microbes decreases significantly

• Studies show PORKKA BLUE light is effective in reducing Salmonella enterica levels

• The effect of PORKKA BLUE is comparable to UV light without the side effects of UV light

PORKKA BLUE AND THE BENEFITS OF THE CATALYTIC COATING

